

ABSTRACT OF THE DISCLOSURE

Provided is a method for manufacturing a foam-molded article by molding between molds a parison with a foam layer formed by extruding an expandable molten resin composition, obtained by melt-kneading a polyethylene resin and a physical foaming agent, to an area of low pressure from a die, wherein the polyethylene resin is selected from at least any of the following I), II), and III), and wherein the apparent density of the foam layer in the foam-molded article is about 0.04 to 0.3 g/cm³, whereby a foam-molded article with a low apparent density and excellent physical properties can easily be obtained.

I) A resin comprising 40 to 85 wt% polyethylene (A) with a density that is more than 0.94 g/cm³ and not more than 0.97 g/cm³, and a melt flow rate of 0.1 to 20 g/10 minutes; and 15 to 60 wt% polyethylene (B) with a density of 0.89 to 0.94 g/cm³, a melt flow rate of 0.2 to 20 g/10 minutes, and a melt tension of not less than 2 cN (provided that the total of polyethylene (A) and (B) is 100 wt%).

II) A resin which has at least one endothermic peak having a top temperature of not less than 125°C on a DSC curve obtained by differential scanning calorimetry, and in which the ratio of the heat quantity of the endothermic peak(s) at not less than 125°C with respect to the total heat quantity of the endothermic peak(s) is 50 to 95%, melt flow rate is 0.2 to 25 g/10 minutes, and melt tension is not less than 1.5 cN.

III) A resin which comprises 40 to 85 wt% polyethylene (A) having a density more than 0.94 g/cm³ and not more than

0.97 g/cm³, and a melt flow rate of 0.1 to 20 g/10 minutes; and
15 to 60 wt% polyethylene (B) having a density of 0.89 to
0.94 g/cm³, a melt flow rate of 0.2 to 20 g/10 minutes, and a
melt tension of not less than 2 cN (provided that the total of
5 polyethylene (A) and (B) is 100 wt%); which has at least one
endothermic peak having a top temperature of not less than 125°C
on a DSC curve obtained by differential scanning calorimetry;
and in which the ratio of the heat quantity of the endothermic
peak(s) at not less than 125°C with respect to the total heat
10 quantity of the endothermic peak(s) is 50 to 95%, melt flow rate
is 0.2 to 25 g/10 minutes, and melt tension is not less than
1.5 cN.

The foam-molded article of the present invention, as
obtained by the above-described method, has a foam layer with an
15 apparent density of about 0.04 to 0.3 g/cm³ and a thickness of 2
to 25 mm, exhibits excellent heat resistance, mechanical
strength, low-temperature impact resistance, and possesses
excellent lightweight, thermal-insulating characteristics,
soundproofing characteristics, vibration-proofing
20 characteristics, chemical resistance, and recycling properties.